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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,960	01/17/2001	Magnus Hallenstal	27943-00409USP1	7006

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ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER	
VOLPER, THOMAS E	

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/764,960	HALLENSTAL ET AL.	
	Examiner	Art Unit	
	Thomas Volper	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 24 August 2004 have been fully considered but they are not persuasive.

2. In response to Applicants' argument regarding claim 1 that Holler "does not teach or suggest an arrangement in which the narrowband component includes switching intelligence for selectively routing a communication through either the narrowband switching fabric or the broadband switching fabric", the Examiner respectfully disagrees. Holler clearly discloses that a narrowband component (213) has switching intelligence in Figure 2 with the label "Narrowband service intelligence and call control." The arrangement of Holler is intended to provide a migration of existing voice networks like PSTN towards ATM based networks while still supporting the intelligent services of such existing networks (page 4). Holler discloses that using the information and logic contained in the narrowband switches, an emulated virtual connection is established through the narrowband switches (page 3). This meets the limitation of selectively routing a communication through the narrowband switching fabric. The claim does not recite any limitation that requires the narrowband switches to physically switch actual traffic, as Applicants suggest (page 1 of "Remarks", bottom paragraph). Holler also states that the ATM network is "a switched ATM network, i.e. ATM signaling is used both for establishing and disconnecting connections through the ATM network, at any level of the ATM network, e.g. at the AAL2 level" (page 4). This ATM network naturally provides plain broadband connections from one broadband terminal to another (see Figure 4). There is only a need to use the

intelligent services provided by the narrowband switches when connecting a narrowband terminal across the migration ATM network. Thus, the logical node comprising narrowband switch (213) and switch emulator (217) need only setup emulated virtual connections through the narrowband switch when a narrowband call is being made.

3. Applicants make similar arguments for independent claims 8, 17, 23, 25, 34, and 37 to the arguments made regarding claim 1. The Examiner disagrees with these arguments for the same reasons as presented above regarding claim 1. In addition, Applicants' argue that neither Holler nor Allen teach or suggest selectively routing a TDM communication or an ATM communication in regard to claim 37. Holler clearly discloses routing ATM communications as mentioned above, and TDM is simply an example of a narrowband communication. Allen discloses that TDM communications are a form of narrowband communications (paragraph [0026]).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-17, 19-31 and 33-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Holler et al. (WO 98/28884).

Regarding claims 1, 8, 17, 20, 21, 23, 25, 26, 34 and 35, Holler discloses an arrangement

comprising a narrowband component including switching intelligence and narrowband switching fabric, a broadband component including broadband switching fabric, wherein the arrangement is capable of terminating an incoming side and an outgoing side of a first communication at the narrowband component, and the arrangement is capable of terminating an incoming side of a second communication at the narrowband component and an outgoing side of the second communication at the broadband component (see Figures 2 and 4; pages 6-9). The Narrowband Call Control and Virtual Switch (213) meets the limitation of a narrowband component and the Switch Emulator Function (217) meets the limitation of a broadband component. Together, components (213) and (217) meet the limitation of a logical node with a circuit-based switch and a packet-based switch. As can be seen in Figure 2, the logical node represented by narrowband component (213) and broadband component (217) may receive and forward communications in either a narrowband format or broadband format to another logical node, represented by (215) and (219).

Regarding claims 2, 11 and 12, Holler discloses that a broadband component, which also meets the limitation of a packet-based switch, may terminate incoming and outgoing sides of a communication (see Figure 2; page 9, top paragraph).

Regarding claims 3, 15, 22 and 36, Holler discloses that value added services may be invoked while connecting a call (page 8, middle of page).

Regarding claim 4, Holler discloses that the broadband component relies on the switching intelligence of the narrowband component (page 6 – page 7).

Regarding claims 5 and 19, Holler discloses narrowband switches, which act as STM switches, and ATM switches, which are broadband switches (page 6, 2nd and 3rd paragraphs).

Regarding claims 9, 13, 14 and 16, Holler discloses that any combination of narrowband and broadband across the network (401) is possible (see Figure 4).

Regarding claims 6 and 10, Holler discloses a Switch Emulator Function (217) that meets the limitation of at least one circuit emulator.

Regarding claim 7, Holler discloses that the broadband component emulates a circuit connection (page 6 – page 7).

Regarding claim 24, Holler discloses that the nodes may send instructions concerning routing information to each other (page 8 – page 9).

Regarding claim 27, Holler discloses receiving a communication having an identifier that corresponds to a destination terminal wherein that communication is on a broadband transport mechanism (page 8, bottom paragraph).

Regarding claim 28, Holler discloses receiving a communication having an identifier that corresponds to a destination terminal wherein that communication is on a narrowband transport mechanism (page 8, middle of page).

Regarding claim 29, Holler discloses an identifier comprising a B-channel, which meets the limitation of a B-number (page 9 – page 10).

Regarding claims 30, 31 and 33, Holler discloses using routing tables to discover a routing path VT13 through the ATM network, which is a Bearer Services Network (BSN) between a narrowband terminal and narrowband network (see Figure 4; page 7, bottom paragraph).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holler et al. (WO 98/28884) in view of Allen, Jr. et al. (US 2001/0017861).

Regarding claim 37, Holler discloses terminating a narrowband inbound side of a communication at a circuit-switch, switching the communication by the circuit-switch and terminating a narrowband outbound side of the communication at the switch. Holler also discloses terminating a narrowband inbound side of a communication at the circuit-switch, switching the communication by the circuit-switch, switching the communication by a packet switch, and terminating an ATM outbound side of the communication at the packet switch (see Figures 2-6; pages 6-9). Holler fails to expressly disclose that the narrowband side of a communication is a TDM side of a communication. Allen, Jr. discloses that TDM may be a form of narrowband communication (paragraph [0026]). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to include TDM as a narrowband form of communication in the invention of Holler. One of ordinary skill in the art would have been motivated to do this in order to provide the transparent narrowband based telephony services of Holler to a greater number of narrowband users.

Regarding claims 38 and 40, Holler discloses that the logical node represented by narrowband component (213) and broadband component (217) may receive and forward

communications in either a narrowband format or broadband format to another logical node, represented by (215) and (219), as can be seen in Figure 2.

Regarding claims 39, Holler discloses that value added services may be invoked while connecting a call (page 8, middle of page).

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holler et al. (WO 98/28884) as applied to claims 1-17, 19-31 and 33-36 above, and further in view of Allen, Jr. et al. (US 2001/0017861).

Regarding claim 18, Holler fails to expressly disclose that the narrowband side of a communication is a TDM side of a communication. Allen, Jr. discloses that TDM may be a form of narrowband communication (paragraph [0026]). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to include TDM as a narrowband form of communication in the invention of Holler. One of ordinary skill in the art would have been motivated to do this in order to provide the transparent narrowband based telephony services of Holler to a greater number of narrowband users.

9. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holler et al. (WO 98/28884).

Regarding claim 32, as described above Holler meets all of the limitations of the claim except for determining a proximity between the network node and the destination terminal. However, shortest path routing algorithms are well known in the art. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to determine the

proximity of the node and terminal in order to find the shortest route therebetween. One of ordinary skill in the art would have been motivated to do this in order to perform a more efficient method of communication.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication, or earlier communications from the examiner should be directed to Thomas Volper whose telephone number is (571) 272-3151. The examiner can normally be reached between 8:30am and 5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached at (571) 272-3155. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Thomas E. Volper

TEV

December 21, 2004

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600